

embodiment, the aspect ratio would be about 30/3 or 10.


The Examiner is respectfully requested to identify where the 30mm diameter and 3 mm thickness numbers are found in the reference.

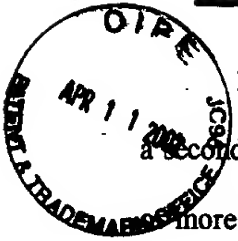
By the accompanying amendment, the independent claims have been amended to recite that the apertures or recesses are defined by solid walls extending through the thickness. Support for the amendment can be found in Figures 3, 3A, 3B and 3C, for example. Certain independent claims also have been amended to recite that the porous structure is self-retaining. Support for this amendment can be found at page 13, lines 14-18 of the specification, for example.

In contrast, the Fernwood et al. recesses are not defined by solid walls through the thickness of the substrate; a gap is provided in order to hold the membrane in place. the membrane is not self-retaining.

Reconsideration and allowance are respectfully requested in view of the foregoing.

Respectfully submitted,


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Version With Markings to Show Changes Made

1. (Twice amended) A housing having a thickness, said housing have a first surface and a second surface spaced from said first surface by said housing thickness, said housing having one or more apertures formed through said housing, each of said one or more apertures defined by solid walls extending through said thickness of said housing and containing a self-retaining structure comprising a porous matrix, said structure having a height between said first surface and said second surface less than or equal to said thickness, said structure having an aspect ratio of less than about 20.

9. (Amended) A housing having a thickness, a length and a width, said housing having a first surface and a second surface spaced from said first surface by said thickness, the dimensions of said thickness being less than the dimensions of said length and/or said width, said housing having one or more apertures formed through said housing and defined by solid walls extending through said thickness, each of said one or more apertures containing a self-retaining structure comprising a porous matrix.

17. (Twice amended) A sample preparation devices, comprising a sample reservoir and a collection reservoir spaced from said sample reservoir, and a substrate between said sample reservoir and said collection reservoir, said substrate have a first surface and a second surface spaced from said first surface defining a thickness, said substrate comprising one or more recesses formed therethrough, each of said one or more recesses defined by solid walls extending through said thickness and containing a self-retaining structure comprising a porous matrix, said structure having a height between said first surface and said second surface less than or equal to said thickness, said structure having an aspect ratio of less than about 20.

31. (Amended) A sample preparation device for use with a chamber in communication

with a driving force, said device comprising:

a sample reservoir; a substrate fixed to said sample reservoir, said substrate having a first surface and a second surface spaced from said first surface, said substrate comprising at least one recess formed therethrough, said at least one recess defined by solid walls extending through said substrate and containing a self-retaining structure comprising a porous matrix; and a spout fixed to said at least one recess for directing flow into said chamber.

33. (Amended) A housing having a thickness, said housing have a first surface and a second surface spaced from said first surface by said housing thickness, said housing having one or more apertures formed through said housing, each of said one or more apertures defined by solid walls extending through said thickness and containing a structure comprising a porous matrix, said structure having a height between said first surface and said second surface less than or equal to said thickness, said structure being self-retaining in said housing.

34. (Amended) A filtration device comprising a substrate having first and second spaced surfaces defining a housing thickness and an array of spaced, independent apertures formed through said housing thickness, each of said independent apertures defined by solid walls extending through said thickness and containing a formed porous matrix, the porous matrix in each independent aperture being segregated from the porous matrix in each other different independent aperture, said first and second surfaces in the space between said apertures being devoid of said porous matrix, said porous matrix adapted to be self-retaining in said apertures.

Replacement Sheets

31 1. (Twice amended) A housing having a thickness, said housing have a first surface and a second surface spaced from said first surface by said housing thickness, said housing having one or more apertures formed through said housing, each of said one or more apertures defined by solid walls extending through said thickness of said housing and containing a self-retaining structure comprising a porous matrix, said structure having a height between said first surface and said second surface less than or equal to said thickness, said structure having an aspect ratio of less than about 20.

32 9. (Amended) A housing having a thickness, a length and a width, said housing having a first surface and a second surface spaced from said first surface by said thickness, the dimensions of said thickness being less than the dimensions of said length and/or said width, said housing having one or more apertures formed through said housing and defined by solid walls extending through said thickness, each of said one or more apertures containing a self-retaining structure comprising a porous matrix.

33 17. (Twice amended) A sample preparation devices, comprising a sample reservoir and a collection reservoir spaced from said sample reservoir, and a substrate between said sample reservoir and said collection reservoir, said substrate have a first surface and a second surface spaced from said first surface defining a thickness, said substrate comprising one or more recesses formed therethrough, each of said one or more recesses defined by solid walls extending through said thickness and containing a self-retaining structure comprising a porous matrix, said structure having a height between said first surface and said second surface less than or equal to said thickness, said structure having an aspect ratio of less than about 20.

34 31. (Amended) A sample preparation device for use with a chamber in communication

with a driving force, said device comprising:

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a sample reservoir; a substrate fixed to said sample reservoir, said substrate having a first surface and a second surface spaced from said first surface, said substrate comprising at least one recess formed therethrough, said at least one recess defined by solid walls extending through said substrate and containing a self-retaining structure comprising a porous matrix; and a spout fixed to said at least one recess for directing flow into said chamber.

33. (Amended) A housing having a thickness, said housing have a first surface and a second surface spaced from said first surface by said housing thickness, said housing having one or more apertures formed through said housing, each of said one or more apertures defined by solid walls extending through said thickness and containing a structure comprising a porous matrix, said structure having a height between said first surface and said second surface less than or equal to said thickness, said structure being self-retaining in said housing.

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34. (Amended) A filtration device comprising a substrate having first and second spaced surfaces defining a housing thickness and an array of spaced, independent apertures formed through said housing thickness, each of said independent apertures defined by solid walls extending through said thickness and containing a formed porous matrix, the porous matrix in each independent aperture being segregated from the porous matrix in each other different independent aperture, said first and second surfaces in the space between said apertures being devoid of said porous matrix, said porous matrix adapted to be self-retaining in said apertures.
